## BACHELOR OF SCIENCE (LABORATORY SCIENCES) (CBCS - 2019 COURSE) B.Sc. (Lab Sci) Sem-I : WINTER- 2022 SUBJECT : PHYSIOL OGY

			SUBJECT : PHY	SIOLOG	Y	
Day:	Wedneso	day			Time: 10:00 AM-12:00	
Date :	18-01-2	023	W-21593-202	2	Max. Marks	10
N.B.						<u>-</u>
1112	1)	Section – B – Lon	ective Type Questions g Answer Questions	- 2	0 marks 0 marks 0 marks	
	2)	Section A is given sheet. This sheet s	in SEPARATE sheet a should be completed with sheet with Section A or	and has to be th the first 2	e answered on the s O minutes of starting	ng of the
	3)		r long questions and AN	_		answered.
	4)	Section C has six answered.	short questions and <b>AN</b> Y	Y FIVE que	stions have to be	
	5)		e ☑ such kind of mark in	the box of	the appropriate ans	swer.
Seat 1	No		SECTION – A			
MC	Ωs		SECTION - A			(10)
1)	•	efractory period is a	n property shown by			(10)
1)	a)	Cardiac muscle	i property snown by			
	b)	Skeletal muscle				
	c)	Single unit muscle	<u>.</u>			
	d)	Smgre unit musele				
2)		1				
2)		1	asma proteins except			
	a) [	Albumin				
	b)	Globulin				
	c)	Fibrinogen				
	d)	Myoglobin				
3)	Which		not a phase of action pot	ential?		
	a)	Depolarisation				
	b)	Repolarisation				
	c)	Hyperpolarisation				
	d)	Resting membrane	potential			
4)	Which	of the following is r	muscle of inspiration?			
	a)	Internal intercostal	[			
	b)	External intercosta	<b>.</b> 1			
	c)	Latissimus dorsi				

d) \_\_\_\_ Muscles of anterior abdominal wall

P.T.O.

PM

a) 4-8 b) 12-20 c) 21-28 d) 30-35 6) QRS complex in electrocardiogram is due to a) Atrial depolarisation b) Atrial repolarisation c) Ventricular depolarisation d) Ventricular repolarisation 7) Long term mechanism for regulation of blood pressure is a) Baroreceptor reflex b) Chemoreceptor reflex c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism 8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A 9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV 10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator Signature of Examiner  Signature of Examiner	5)	Normal rate of respiration per minute is			
c) 21 – 28 d) 30 – 35  6) QRS complex in electrocardiogram is due to a) Atrial depolarisation b) Atrial repolarisation e) Ventricular depolarisation d) Ventricular repolarisation 7) Long term mechanism for regulation of blood pressure is a) Baroreceptor reflex b) Chemoreceptor reflex c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism  8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) — 60 mV b) — 90 mV c) — 40 mV d) — 150 mV  10) Normal cardiac output in healthy adults is a) — 3 L/min b) — 5 L/min c) — 10 L/min d) — 15 L/min  Total Marks Obtained — Signature of Invigilator —		a) 4 -8			
d) 30 – 35  6) QRS complex in electrocardiogram is due to a) Atrial depolarisation b) Atrial repolarisation c) Ventricular depolarisation d) Ventricular repolarisation 7) Long term mechanism for regulation of blood pressure is a) Baroreceptor reflex b) Chemoreceptor reflex c) CNS ischaemic response d) Remin-Angiotensin-Aldosterone mechanism  8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) 60 mV b) 90 mV c) 40 mV d) 150 mV  10) Normal cardiae output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		<b>b)</b> 12 – 20			
6) QRS complex in electrocardiogram is due to a) Atrial depolarisation b) Atrial repolarisation c) Ventricular depolarisation d) Ventricular repolarisation 7) Long term mechanism for regulation of blood pressure is a) Baroreceptor reflex b) Chemoreceptor reflex c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism 8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A 9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV 10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min Total Marks Obtained Signature of Invigilator		c) 21 – 28			
a) Atrial depolarisation b) Atrial repolarisation c) Ventricular depolarisation d) Ventricular repolarisation 7) Long term mechanism for regulation of blood pressure is a) Baroreceptor reflex b) Chemoreceptor reflex c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism 8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A 9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV 10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min Total Marks Obtained Signature of Invigilator		<b>d)</b> 30 – 35			
b) Atrial repolarisation e) Ventricular depolarisation d) Ventricular repolarisation 7) Long term mechanism for regulation of blood pressure is a) Baroreceptor reflex b) Chemoreceptor reflex e) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism 8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin e) Surfactant d) Immunoglobulin A 9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV 10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min e) 10 L/min d) 15 L/min Total Marks Obtained Signature of Invigilator	6)	QRS complex in electrocardiogram is due to			
c)  Ventricular depolarisation d)  Ventricular repolarisation 7) Long term mechanism for regulation of blood pressure is a)  Baroreceptor reflex b)  Chemoreceptor reflex c)  CNS ischaemic response d)  Renin-Angiotensin-Aldosterone mechanism 8) Surface tension lowering agent present in alveoli is a)  Histamine b)  Serotonin c)  Surfactant d)  Immunoglobulin A 9) Resting membrane potential in skeletal muscle is a)  -60 mV b)  -90 mV c)  -40 mV d)  -150 mV 10) Normal cardiac output in healthy adults is a)  3 L/min b)  5 L/min c)  10 L/min d)  15 L/min  Total Marks Obtained  Signature of Invigilator		a) Atrial depolarisation			
d)  Ventricular repolarisation  7) Long term mechanism for regulation of blood pressure is  a)  Baroreceptor reflex  b)  Chemoreceptor reflex  c)  CNS ischaemic response  d)  Renin-Angiotensin-Aldosterone mechanism  8) Surface tension lowering agent present in alveoli is  a)  Histamine  b)  Serotonin  c)  Surfactant  d)  Immunoglobulin A  9) Resting membrane potential in skeletal muscle is  a)  -60 mV  b)  -90 mV  c)  -40 mV  d)  -150 mV  10) Normal cardiac output in healthy adults is  a)  3 L/min  b)  5 L/min  c)  10 L/min  d)  15 L/min  Total Marks Obtained Signature of Invigilator Signature of Invigilator		b) Atrial repolarisation			
7) Long term mechanism for regulation of blood pressure is  a) Baroreceptor reflex b) Chemoreceptor reflex c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism  8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		c) Ventricular depolarisation			
a) Baroreceptor reflex b) Chemoreceptor reflex c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism 8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A 9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV 10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min Total Marks Obtained Signature of Invigilator		d) Ventricular repolarisation			
b) Chemoreceptor reflex c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism 8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A 9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV 10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator	7)	Long term mechanism for regulation of blood pressure is			
c) CNS ischaemic response d) Renin-Angiotensin-Aldosterone mechanism  8) Surface tension lowering agent present in alveoli is a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		a) Baroreceptor reflex			
d) Renin-Angiotensin-Aldosterone mechanism  8) Surface tension lowering agent present in alveoli is  a) Histamine  b) Serotonin  c) Surfactant  d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is  a) -60 mV  b) -90 mV  c) -40 mV  d) -150 mV  10) Normal cardiac output in healthy adults is  a) 3 L/min  b) 5 L/min  c) 10 L/min  d) 15 L/min  Total Marks Obtained Signature of Invigilator		b) Chemoreceptor reflex			
8) Surface tension lowering agent present in alveoli is  a) Histamine b) Serotonin e) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) 60 mV b) 90 mV e) 40 mV d) 150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min e) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		c) CNS ischaemic response			
a) Histamine b) Serotonin c) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		d) Renin-Angiotensin-Aldosterone mechanism			
b) Serotonin c) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) 60 mV b) 90 mV c) 40 mV d) 150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator	8)	Surface tension lowering agent present in alveoli is			
c) Surfactant d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is a) -60 mV b) -90 mV c) -40 mV d) -150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		a) Histamine			
d) Immunoglobulin A  9) Resting membrane potential in skeletal muscle is  a) 60 mV  b) 90 mV  c) 40 mV  d) 150 mV  10) Normal cardiac output in healthy adults is  a) 3 L/min  b) 5 L/min  c) 10 L/min  d) 15 L/min  Total Marks Obtained Signature of Invigilator		b) Serotonin			
9) Resting membrane potential in skeletal muscle is  a) 60 mV  b) 90 mV  c) 40 mV  d) 150 mV  10) Normal cardiac output in healthy adults is  a) 3 L/min  b) 5 L/min  c) 10 L/min  d) 15 L/min  Total Marks Obtained Signature of Invigilator		e) Surfactant			
a) 60 mV b) 90 mV c) 40 mV d) 150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		d) Immunoglobulin A			
b)	9)	Resting membrane potential in skeletal muscle is			
c) 40 mV d) 150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		a) 60 mV			
d) 150 mV  10) Normal cardiac output in healthy adults is a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		<b>b)</b> 90 mV			
10) Normal cardiac output in healthy adults is  a) 3 L/min  b) 5 L/min  c) 10 L/min  d) 15 L/min  Total Marks Obtained Signature of Invigilator		e) 40 mV			
a) 3 L/min b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator		d) 150 mV			
b) 5 L/min c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator	10)	Normal cardiac output in healthy adults is			
c) 10 L/min d) 15 L/min  Total Marks Obtained Signature of Invigilator Signature		a) 3 L/min			
d) 15 L/min  Total Marks Obtained Signature of Invigilator		<b>b)</b> 5 L/min			
Total Marks Obtained Signature of Invigilator		c) 10 L/min			
		d) 15 L/min			
	Total	Marks Obtained Signature of Invigilator			
Signature of Examiner	10141	Width's Obtained			
Signature of Examiner					
		Signature of Examiner			
* * * *					

## BACHELOR OF SCIENCE (LABORATORY SCIENCES) (CBCS - 2019 COURSE) B.Sc. (Lab Sci) Sem-I : WINTER- 2022 SUBJECT : PHYSIOLOGY

Day: Wednesday Time: 10:00 AM-12:00 PM

Date: 18-01-2023 W-21593-2022 Max. Marks: 30

N.B.

1) There are **THREE** sections as

Section – A – Objective Type Questions - 10 marks Section – B – Long Answer Questions - 20 marks

Section – C – Short Answer Questions - 10 marks

- 2) Section B has four long questions and ANY TWO questions have to be answered.
- 3) Section C has six short questions and **ANY FIVE** questions have to be answered.
- 4) Answer to both the section should be written in the **SAME** answer book.

## SECTION - B

Long Answer (Attempt ANY TWO)

(20)

- 1) Define blood pressure. Enumerate various mechanisms involved in regulation of blood pressure. Describe baroreceptor mechanism in detail.
- 2) How are the white blood cells classified? Describe structure & functions of various white blood cells.
- 3) With the help of diagram, describe various volumes & capacities of lungs.
- 4) Define glomerular filtration rate. Discuss various factors affecting it

## SECTION - C

Short Answer (Attempt ANY FIVE)

(10)

- 1) Enumerate transport mechanisms across cell membrane.
- 2) State mechanisms of hemostasis.
- 3) List the functions of surfactant.
- 4) List the sensations carried by spinothalamic tracts.
- 5) State functions of saliva.
- 6) List functions of cerebellum.

\* \*